

than three feet distant and only a few inches above the ground. The flies appeared to belong to a single species as several were caught for identification, and prove to be a species of *Ilythea*. one of the *ephyridae*, and probably the European species *I. spilota*, as that is the only one recorded from this country. I shall be glad to know if such streams have before been observed among *ephyridae*.

Samuel H. Scudder.

THE SUPPOSED BOT-FLY PARASITE OF THE BOX-TURTLE.—During the autumn of 1889 Mr. W. H. Ellsworth donated to the Milwaukee Public Museum a pair of box-turtles (*Cistudo carolina*), which were taken near Windsor, Ct. They were kept alive during the winter in a terrarium, but the female died 5 April 1890. My friend, the talented taxidermist, Mr. C. E. Akeley, while skeletonizing this specimen called my attention to a peculiar swelling in the animal's neck. Closer examination showed that the cutis close to the carapace and a little to the right of the median dorsal line, had been converted into a pocket about $\frac{3}{4}$ of an inch in diameter. This pocket opened on the surface by means of a very small aperture and contained besides a quantity of suppurative matter, eight maggots which I at first took to be bot-fly larvae. Both their shapes and positions with reference to the inner surface of the cavity which they had excavated reminded me of the *Gastrophilus* larvae so often exhibited in the shops of veterinary surgeons. Such of the larvae as had not been injured during the removal of the skin and flesh from the cervical vertebrae of the turtle, buried themselves in the earth 14-15 April and pupated. The imagines made their appearance 27 May and proved to be not bot-flies at all, but a species of *Sarcophaga*.

Prof. S. W. Williston has directed my attention to the following note by Packard (American naturalist, 1882, v. 16, p. 598):

"The museum of Brown University has received specimens of a bot-fly maggot, of

which eight or ten were taken, according to Prof. J. W. P. Jenks, from under the skin of the back of the neck, close to the shell of the box-turtle (*Cistudo carolina*). The turtle was collected at Middleboro, Mass." * * * *

"It appears to be a genuine bot-fly, but quite unlike any genus figured by Brauer in his work on the *oestridae*."

The body is long and slender, cylindrical, tapering so that each end is much alike. The segments are provided with numerous fine spines, which are not entirely confined to the posterior half or two thirds of the segment. The body is slender and the spines much smaller than in *Gastrophilus equi*."

A comparison of this account with my observation given above leaves no doubt that the larvae seen by Packard and myself are specifically identical. I have also compared one of the maggots with Packard's figure and description and can detect no differences. The error into which he has fallen is pardonable, inasmuch as the *Sarcophaga* larvae are microscopically so similar to bot-fly maggots that any entomologist unaccustomed to the minute study of dipterous larvae would not hesitate to allocate them to the *oestridae*. Until the flies appeared, I was quite sure that I had found a bot-fly infesting a reptile. (See Proc. acad. nat. sci. Phil., 1887, p. 393-394; 1888, p. 128; Science, 5 December 1884, v. 4, p. 511.)

It would seem to be a regular habit with this fly to infest *Cistudo carolina*. That the eggs or young larvae are laid on the living turtle there can be no doubt, but whether they are deposited in a sore, or on the unbraded skin of the nucha, as being a region inaccessible to the turtle's beak and claws, remains to be seen.

The four imagines which I succeeded in rearing proved to be females and though the species appears not to have been described as yet, I would rather wait till male specimens can be secured, before attempting to add another member to the large and very difficult genus *Sarcophaga*.

W. M. Wheeler.